



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/662,857 | 09/15/2003 | Mark Kenneth Eyer | 80398.P561 | 2132 |

7590 10/01/2010
Jan Carol Little
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Seventh Floor
12400 Wilshire Boulevard
Los Angeles, CA 90025-1026

| |
|----------|
| EXAMINER |
|----------|

NGUYEN, NAM V

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2612

| | |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

10/01/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARK KENNETH EYER

Appeal 2009-007128
Application 10/662,857
Technology Center 2600

DECISION ON APPEAL¹

Before JOHN C. MARTIN, KARL D. EASTHOM, and THOMAS S.
HAHN, *Administrative Patent Judges*.

EASTHOM, *Administrative Patent Judge*.

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

STATEMENT OF THE CASE

Appellant appeals² under 35 U.S.C. § 134 from the rejection of claims 1-26. (Br. 1; *see* note 4 *infra*.) We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

*The Disclosed Invention*³

The disclosed invention includes a first audio/video device 102, a second audio/video device 104, a remote control unit 106, and a transmission medium 110. (Spec. ¶ 11; Fig. 1.) “Suitable audio/video devices include, but are not limited, to [sic] set-top boxes such as those on the premises of cable or satellite service subscribers, televisions such as digital television (DTV) receiver/displays, compact disk (CD) players/recorders, digital versatile disc (DVD) players/recorders, surveillance cameras, personal video recorders such as Tivo®, radios, video-cassette recorders/players (VCR), and digital recorders/players.” (*Id.* at ¶ 12.)

The remote control unit emits an optical signal having a data code sequence when a “user pushes a button.” (*Id.* at ¶ 41; Fig. 4.) Device 102 receives the optical signal having the data code sequence. (*Id.* at ¶ 42.) Device 102 “determines whether it recognizes the data code sequence.” (*Id.* at ¶ 43.) If device 102 does not recognize the data code sequence, it generates a representation of the data code sequence. (*Id.* at ¶ 45.) Next, it “transfers the representation of the data code sequence to a transmission

² Appellant’s Appeal Brief (filed April 4, 2007) (“Br.”) and the Examiner’s Answer (mailed Sept. 6, 2007) (“Ans.”) are referenced here.

³ The ensuing description constitutes findings of fact.

medium.” (*Id.* at ¶ 46.) The device 104 receives the representation of the data code sequence from the transmission medium. (*Id.* at ¶ 33.)

Accordingly, the “the remote control unit 106 can control the device 104 despite the fact that the remote control unit 106 does not have line-of-sight communication with the device 104 and despite the fact that the remote control unit 106 is not programmed for communicating with the device 102.” (*Id.* at ¶ 21.)

Exemplary claim 1 follows:

1. A system, comprising:
 - a first device coupled to a transmission medium;
 - a second device coupled to the transmission medium; and
 - a remote control unit for controlling the second device, the remote control unit to transmit a data code sequence, the data code sequence recognized by the second device, the data code sequence for the purpose of controlling the second device,
 - the first device comprising circuitry to generate a representation of the data code sequence if the data code sequence is not recognized by the first device, and to transfer the representation of the data code sequence to the transmission medium to control the second device.

The Examiner relies on the following prior art references:

| | | |
|-------------|-----------------|-------------------|
| Harrington | US 4,864,647 | September 5, 1989 |
| Darbee | US 5,778,256 | July 7, 1998 |
| Prunier | US 5,870,593 | February 9, 1999 |
| Shintani | US 6,111,677 | August 29, 2000 |
| Schultheiss | US 6,195,548 B1 | February 27, 2001 |
| Contaldo | US 6,728,600 B1 | April 27, 2004 |

Jussi Teirikangas, HAVi: Home Audio Video Interoperability, Helsinki University of Technology (May 15, 2001), *available at* http://www.tml.tkk.fi/Studies/Tik-111.590/2001s/papers/jussi_teirikangas.pdf.

Claims 1-4, 6, 7, and 14-16 stand rejected under 35 U.S.C. 102(b) as anticipated by Schultheiss.

Claims 19 and 20 stand rejected under 35 U.S.C. 102(b) as anticipated by Harrington.

Claim 5 stands rejected as obvious under 35 U.S.C. 103(a) based on Schultheiss and Darbee.

Claims 8-10 stand rejected as obvious under 35 U.S.C. 103(a) based on Schultheiss and Shintani.

Claims 11-13, 17, and 18 stand rejected as obvious under 35 U.S.C. 103(a) based on Schultheiss and Teirikangas.

Claim 21 stands rejected as obvious under 35 U.S.C. 103(a) based on Harrington and Teirikangas.

Claims 22-25 stand rejected as obvious under 35 U.S.C. 103(a) based on Shintani and Prunier.

Claim 26 stands rejected as obvious under 35 U.S.C. 103(a) based on Shintani, Prunier, and Contaldo.

ISSUES

Appellant's responses to the Examiner's positions present the following issues:

1. Did the Examiner err in finding that Schultheiss discloses "circuitry to generate a representation of the data code sequence if the data code sequence is not recognized by the first device, and to transfer the

representation of the data code sequence to the transmission medium to control the second device” as recited in claim 1, and as similarly recited in claim 14?

2. Did the Examiner err in finding that the combination of Shintani and Prunier renders obvious claims 22-26?

FINDINGS OF FACT (FF)

Schultheiss

1. As shown in Figure 2, Schultheiss discloses a system including a remote control unit 50' with a UHF transmitter 54, a personal computer 12, a television, and a television interface 200. (Col. 7, ll. 14-32.)

2. The system

controls the television by accepting user input commands to remotely control a television from a wireless remote control, and transmits UHF remote control signals from the wireless remote control to a personal computer. The UHF remote control signals are received at the personal computer. They may be processed by the personal computer. Television remote control signals and television video signals are then transmitted from the personal computer to a television. The received television video signals are applied to the television for display. The received television remote control signals are converted into infrared television remote control signals to control the television.

(Col. 8, ll. 10-22.)

Shintani

3. Shintani discloses “an apparatus and technique for controlling equipment or a device which is located out of the operational range of an optical remote controller.” (Col. 2, ll. 9-12.) “The apparatus comprises an optical receiving unit, a serial bus, and an optical transmitting unit.” (Col. 2, ll. 12-13.)

4. “The optical receiver unit 120 receives the optical signal and translates the received signal into a bit sequence that can be transmitted over the transmission medium” (Col. 2, ll. 44-46.) “[T]he received optical command can be sampled at a low sampling rate, e.g., at least two times the bit rate of the demodulated optical command” (Col. 3, ll. 61-65.)

5. The optical receiver unit includes:

an optical receiver 122, a buffer 124, and an input/output (I/O) interface 126. The optical receiver unit 122 receives the optical signal emitted by the optical remote controller 110 and converts the optical signal into a serial data stream in digital form. The buffer 124 is a memory device that stores the serial data forwarded by the optical receiver 122. . . . The I/O interface 126 comprises interface circuits that convert the data provided from the buffer 124 into data compatible with the electrical characteristics of the transmission medium 130.

(Col. 2, ll. 44-59.)

6. As shown by Figure 2, the optical receiver includes “a photodiode 210, an Automatic Brightness Level Control (ABLC) 212, a head amplifier 220, two gain resistors 222 and 224, a coupling capacitor 226, a limiter amplifier 230, a coupling capacitor 232, a bandpass filter (BPF) 240, a filter resistor 242, a detector/comparator 250, a capacitor 252, an integrator 260, a hysteresis comparator 270, and a matching resistor 272.” (Col. 4, ll. 1-7.)

Prunier

7. Prunier discloses “a method for generating pulse trains by means of a microprocessor, consisting of generating an envelope signal by means of a timer which is programmable by a CPU, the width of a square wave of the envelope signal corresponding to the width of the pulse trains, generating a carrier signal having a predetermined frequency, and modulating the envelope signal with the carrier.” (Abstract.)

8. The method produces an output signal S from an envelope signal E and a carrier signal P:

Signal E is directed to a first input of logic gate 11 via a flip-flop 12, and signal P is directed to a second input of logic gate 11 and to a clock input of flip-flop 12. Consequently the width of each square wave C of signal E corresponds to an integer multiple of the modulation carrier, that is, of signal P. Through such a construction a falling edge of signal E is thus only transmitted to gate 11 upon occurrence of a rising edge of signal P. Thus, the output of timer 2 is set-up again to correspond to an integer multiple of the period of signal P. Such synchronization guarantees that the width of all pulses I of a same train T1, T2, or T3 is identical. This is of particular interest in an application to infrared remote controls since it guarantees that a last pulse of a train is not cut-off by the falling edge of signal E and thus, that the shape factor is respected on the entire pulse train.
(Col. 4, ll. 19-34.)

PRINCIPLES OF LAW

The Examiner bears an initial burden of factually supporting an articulated rejection. *In re Oetiker*, 977 F.2d 1443 (Fed. Cir. 1992). “It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim” *In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986). Under § 103, ““there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”” *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007) (citation omitted). On appeal, Appellant may rebut the Examiner’s findings and reasoning with opposing evidence or argument. Failure to do so may constitute a waiver of potential arguments. *See Ex parte Frye*, 94 USPQ2d 1072, 1075 (precedential) (BPAI 2010) (“If an appellant fails to present arguments on a particular issue — or, more

broadly, on a particular rejection — the Board will not, as a general matter, unilaterally review those uncontested aspects of the rejection.”); *Hyatt v. Dudas*, 551 F.3d 1307, 1313-14 (Fed. Cir. 2008) (The Board may treat arguments appellant failed to make for a given ground of rejection as waived); 37 C.F.R. § 41.37(c)(1)(vii).

ANALYSIS

Issue 1- Claims 1-4, 6-7, and 14-16

Appellant asserts that Schultheiss does not anticipate claim 1 because it “does not teach ‘the first device comprising circuitry to generate a representation of the data code sequence if the data code sequence is not recognized by the first device’ . . . as recited in claim 1.” (Br. 7 (emphasis omitted).) Appellant also asserts that the Examiner has improperly characterized Schultheiss with respect to claim 1. (Br. 6, 8-9.) Appellant also asserts that the Examiner improperly equated a single element as two distinctly claimed elements because “there is no teaching in Schultheiss that the television remote control signals 70b are anything other than a simple pass through of the television commands 74a.” (Br. 7.)

As found by the Examiner, however, Schultheiss does disclose a first device (*i.e.*, a personal computer and a television interface) comprising circuitry to generate a representation of a data code sequence (*e.g.*, IR signals 218) if the data code sequence (*i.e.*, television remote control signals 70b) is not recognized by the first device. (Ans. 14-15; *accord* FF 1 and 2.) Appellant does not explain what the phrase “not recognized” means or explain clearly why Schultheiss does not satisfy this limitation. Under these circumstances, the phrase reasonably means that the data code sequence is not a command for the first device.

As also found by the Examiner, the television remote control signals 70b are not a simple pass through of the television commands 74a. Rather, “the converter in the PC interface card 22 of the personal computer (12) converts the TV commands signal (74a) into the TV commands signal (70b) and the TV command signal (70b) is a representation of the TV command signal (74a).” (Ans. 16; accord FF 2.) Moreover, “the PC and the TV interface could be considered the first device and then the representation signal 218 would be an IR signal that would be different than the UHF signal 74a.” (Ans. 16, *accord* FF 2.) Accordingly, the Examiner did not improperly characterize Schultheiss.

Therefore, we will sustain the Examiner’s rejection of claim 1. We will also sustain the Examiner’s rejection of independent claim 14 for the reasons expressed for claim 1 because Appellant’s arguments for claim 14 are substantially the same as his arguments for claim 1. (*See* Br. 9-11.) We will also sustain the Examiner’s rejection of claims 2-4, 6, 7, 15, and 16, which depend from claims 1 or 14, because Appellant did not present separate patentability arguments for these dependent claims. (*See* Br. 8, 11.)

Issue 2 – Claims 22-25

Appellant argues that claim 22 is patentable over the combination of Shintani and Prunier. (Br. 11-13.) Appellant argues that the Examiner improperly used a mere statement to support a determination of obviousness and that the combination of Shintani and Prunier does not teach every element of claim 22. (Br. 12-13.) Appellant argues that neither Shinani nor Prunier teaches “that the output of an optical receiver, demodulator, and processor provide the same data stream to the buffer,” or “sampling the data

code sequence and generating a representation of the data code sequence from the samples.” (Br. 12.)

As found by the Examiner, however, Shintani discloses an apparatus that samples a data code sequence and generates a representation of the data code sequence and that includes a number of components that constitute an optical receiver, a demodulator, and a processor. (Ans. 17-18; *accord* FF 3-6.) As also found by the Examiner, Prunier discloses a digital signal pulse train signal S that is a representation of a data code sequence E. (Ans. 19; *accord* FF 7-8.) The Examiner also found that there was a motivation to combine Shintani and Prunier: “it would have been obvious to a person skilled in the art at the time the invention was made to include sampling the data code sequence and generating a representative of the data code sequence from samples to be stored in the buffer in the device of Shintani et al. as evidenced by Prunier et al. because such would provide continuous data stream without unnecessarily losing [sic] data at all times, thus increasing communication reliability.” (Ans. 19.) Accordingly, the Examiner does not, in fact, rely on a mere statement to support a determination of obviousness.

Therefore, we will sustain the Examiner’s rejection of claim 22. We will also sustain the Examiner’s rejection of claims 23-26 which depend from claim 22. Appellant did not present separate patentability arguments for these dependent claims. (*See* Br. 13.)

CONCLUSION

The Examiner did not err in finding that that Schultheiss discloses “circuitry to generate a representation of the data code sequence if the data code sequence is not recognized by the first device, and to transfer the

representation of the data code sequence to the transmission medium to control the second device” as recited in claim 1, and as similarly recited in claim 14. The Examiner did not err in finding that the combination of Shintani and Prunier renders obvious claims 22-26. Appellant did not present separate arguments for any of claims 5, 8-13, or 17-21 and therefore, we will also sustain the Examiner’s rejections of those claims.⁴

DECISION

We affirm the Examiner's decision rejecting claims 1-26.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136. *See* 37 C.F.R. § 1.136(a)(1)(v) (2010).

AFFIRMED

KMF

⁴ Appellant’s Notice of Appeal (Jan. 17, 2007) is an appeal from the Examiner’s last decision, Office Action (Oct. 17, 2006), in which claims 1-26 were finally rejected. While Appellant states that “claims 1-18 and 20-26 are the subject of this appeal,” (Br. 2), Appellant also identifies claims 1-26 at the beginning of the Appeal Brief and, in the very next sentence, “requests consideration . . . for allowance of these claims.” (Br. 1.) Further, claims 20 and 21 depend from claim 19 and are on appeal, further implying claim 19 is on appeal. The record does not show that claims 19-21 were withdrawn or cancelled. Claims 1-26 are listed in the Brief. (Claims App’x.) Because of the ambiguity presented over which claims are on appeal, *Ex parte Ghuman*, 88 USPQ2d 1478, 1480 (BPAI 2008) (precedential) (remanding an appeal to allow the Examiner to cancel impliedly withdrawn claims) does not apply. In any case, under *Frye*, 94 USPQ2d at 1075, failure to separately argue claims 19-21 (and other claims noted) constitutes waiver.

Appeal 2009-007128
Application 10/662,857

Jan Carol Little
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Seventh Floor
12400 Wilshire Boulevard
Los Angeles, CA 90025-1026